

WHAT IS CLAIMED IS:

1. A method for forming a pattern over a substrate,
comprising:

forming a resist layer on a substrate having an etching
layer thereon;

locating a master having a convex pattern over the
substrate;

pressing the master against the substrate until the convex
pattern of the master directly contacts the etching layer; and

removing a portion of the resist layer to expose a surface
over the substrate, the removed portion of the resist layer
having a width substantially the same as the convex portion of
the master.
2. The method of claim 1, wherein the removing a portion
of the resist layer is performed by separating the master from
the substrate.
3. The method of claim 1, further comprising:

forming a gate electrode and a gate line on a substrate;
forming a gate insulating layer on the gate electrode and
the gate line;
forming a semiconductor layer on the gate insulating layer;
forming source/drain electrodes and a data line on the
semiconductor layer; and
forming a passivation layer on the substrate.

4. The method of claim 1, wherein the resist layer is
formed of a self-aligned monolayer material.

5. The method of claim 4, wherein the forming a resist
layer comprises:

dissolving self-aligned monolayer molecules in ethanol;
dipping the substrate into the self-aligned monolayer
molecules dissolved ethanol.

6. The method of claim 4, wherein the resist layer has a
thickness of tens of angstroms (Å).

7. The method of claim 1, wherein the etching layer is an insulating layer.

8. The method of claim 6, wherein the insulating layer is one of SiO_x or SiN_x.

9. The method of claim 1, wherein the etching layer is a semiconductor layer.

10. The method of claim 1, wherein the etching layer is a metal layer.

11. A method for forming a pattern over a substrate, comprising:

locating a master having a concave portion over a substrate;

forming a resist layer on the master except for the concave portion; and

transferring the resist layer onto the substrate exposing a portion of a surface over the substrate.

12. The method of claim 11, wherein the resist layer is a self-aligned monolayer material.

13. The method of claim 11, wherein the transferring the resist layer onto the substrate is performed by directly contacting the master and the substrate.

14. A method for forming a pattern over a substrate, comprising:

forming an etching layer on a substrate;

forming a self-aligned monolayer layer on the etching layer;

locating a master having a convex portion over the substrate;

pressing the master onto the etching layer until the convex portion directly contacts the substrate;

forming a self-aligned monolayer pattern on the etching layer exposing a portion of a surface over the substrate by

separating the master from the substrate, wherein the portion of the surface has a width substantially the same as the convex portion; and

etching the etching layer using the self-aligned monolayer pattern as a mask.

15. The method of claim 14, wherein the etching layer is formed of one of SiO_x and SiN_x.

16. A method for forming a pattern over a substrate, comprising:

forming an etching layer on a substrate;

locating a master having a concave portion over the substrate, wherein the concave portion corresponds to a portion of the etching layer to be etched;

forming a self-aligned monolayer layer on the master except for the concave portion;

forming a self-aligned monolayer pattern on the etching layer by transferring the self-aligned monolayer layer formed on the master onto the etching layer; and

etching the etching layer using the self-aligned monolayer pattern as a mask.

17. The method of claim 16, wherein the etching layer is formed of one of SiO_x or SiN_x.